DOCUMENT RESUME

ED 073 245 VT 018 593

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TITLE	Developing Adaptive Behavior and Work Skills in Severely Retarded Young Adults.
INSTITUTION	California State Dept. of Mental Hygiene, Sacramento.; Pacific State Hospital, Pomona, Calif.
SPONS AGENCY	California Coordinating Unit for Occupational Research and Development, Sacramento.
NOTE	10p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Behavior Change; Behavior Development; Behavior Patterns; Conduct; *Demonstration Projects; Interpersonal Competence; Job Training; *Mentally Handicapped; Mental Retardation; Reinforcers; Self Esteem; *Sheltered Workshops; Skill Development; Social Behavior; *Vocational Education

ABSTRACT

The Pacific State Hospital conducted a demonstration experiment with 12 severely and profoundly mentally retarded male adolescents, which concentrated on modifying disruptive, bothersome behaviors while developing basic work skills required for daily activity in sheltered workshops. The experiment provided an integrated program for an entire day, utilizing the concept that skills would transfer from a hospital environment to a community environment. The same daily schedule, work skills, and social behaviors sought during the project occur in sheltered workshops in the community. The concept of work and reward were utilized as behavior modifiers. Performance evaluations indicated success in achieving the objectives, and clinical observations indicated growth in the students' self-esteem and social awareness, but their adaptive behavior was still unacceptable for community standards. One of the problems was that their behavior deteriorated unless very structured rewarding circumstances were present. The program has been continued with a token economy being substituted for the tangible rewards, and an hour interval now occurs before reinforcement is given. The efficacy in providing a vocationally oriented program for severely retarded adolescents was demonstrated. (SB)

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DEVELOPING ADAPTIVE BEHAVIOR AND WORK SKILLS IN SEVERELY RETARDED YOUNG ADULTS [1]

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VT018593

Prepared for publication in Educational Resources Information Center; Vocational Education News in California; and The Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University.

The Vocational Education Project at Pacific State Hospital has recently completed a demonstration experiment with severely and profoundly mentally retarded adolescents. The experiment provided an integrated program for an entire day, utilizing the concept that skills would transfer from a hospital environment to a community environment. The same daily schedule, work skills and social behaviors sought during the Project occur in sheltered workshops in the community. It should be noted that the students had not successfully participated in prior educational or work training programs.

This experiment concentrated upon modifying disruptive, bothering behaviors while developing basic work skills required for daily activity in sheltered workshops. A vocational education medium was utilized, with the concept of work and reward as behavior modifiers.

Method

Design: The behavioral objectives in order of priority were the following:

1. The students will display non-bothering behaviors
   1.1 Not interrupt the activity of other people
   1.2 Reduce the number of idiosynocatic, interruptive behaviors
2. The students will learn work skills identical to those required in community sheltered workshops.
   2.1 Perform production tasks, namely punching gaskets for combustion engines
   2.2 Follow directions
   2.3 Stay in designated work areas
   2.4 Work on tasks for increasing periods of time
3. The students will become aware of and use money obtained from work projects.

In achieving the above objectives many other behaviors were developed, such as attention span, fine and gross motor movement, increased awareness of one's environment, and very importantly, increased self-esteem. The immediate goals were chosen for their necessity in completing the assigned tasks and in measuring students' progress.

Two types of data were collected; 1) Number of time intervals in which each student met the objectives (intervals ranged from 20 minutes to 30 minutes) and 2) Amount of hourly production per student, i.e., number of gaskets punched. Only one discrete work task was required of the students.

Subjects: Twelve male adults ages 16 to 19 were chosen from a nearby living unit on the hospital grounds. All of these were functioning at the severely or profoundly retarded level with no previous success in any long-term educational or work training program. These students had been deemed unsuitable for other intensive programs. Most of the students had minimal speech skills, but were capable of comprehending simple instructions and performed basic self help skills.

Procedure: The instructional procedures were derived from behavior shaping techniques and a workshop approach in building skills. Consistent methods in measuring and rewarding each individual's behavior were emphasized. For the first week, a judgment was made every 20 minutes as to whether each student displayed non-bothering behaviors and attempted to work. If he was successful, he was given tangible rewards and verbal praise for his efforts. The student's behavior was also recorded on a time sheet. The time intervals for reward were increased to 30 minutes during the second week and were lengthened as the students continued to succeed. It was deemed important to determine at what level the students performed and to increase their performance gradually, in small steps. The time intervals for reward are just one example of programming small, consistent behaviors. The time sheets also were used as a feedback system for the instructor to measure each student's progress, and obtain information in how to improve the program.

A great deal of energy was spent in teaching work skills; it was hypothesized that disruptive behaviors will decrease given the fact that other more appropriate behaviors were substituted. In this project, work habits were developed so that the students could directly apply

them in the community. The students did not require more sophisticated academic skills to complete the work, since emphasis was placed in eye-hand coordination and in other motor behaviors. Successful performance in sheltered workshops is greatly dependent on physical skills and social behaviors (not exhibiting disruptive influences).

One supervisior for the 12 students was maintained at all times. The supervisor recorded the necessary data and was responsible for shaping and monitoring the students during the day. The students were seated at their tables facing a barren wall, so as to minimize possible distractions and maximize attention skills.

An instructional technique which proved to be more effective and realistic for the workers was a reliance in teaching by imitation. It was more effective to show how to do a task visually rather than to instruct the workers verbally. This is frequently the case for other workers in the sheltered workshop element of the main project.

Results and Discussion

The results of the program illustrated the success in achieving the established objectives. Table 1 represents the number of time intervals in which the workers were rated as acceptable or unacceptable in their behavior. An overwhelming percentage (85%) represented the proportion of acceptable performance for a period of one month. There were fewer behavior problems than previously expected, and the workers performed tasks throughout the day. No prior programs had been able to provide such a lengthy period of constructive activity.

Figure 1 illustrates the amount of hourly production per worker for one month, and the difficultly of the task. The approximate average for the first week was 130 punched gaskets per hour and by the fourth week, production was about 156 gaskets per hour. Also the sophistication of the work was greater as the study progressed. The production was not the primary goal of the study, but it does indicate that the students were busy performing identical skills which are required in the community.

An important note in the graph is the decrease in work for two days when different personnel were present. Consistency in handling the workers was essential for success. Arrangements had been made to maintain the same supervisor for the entire week, and when a break in this schedule occurred, the workers suffered.

Clinical observations indicated growth in the individual's self-esteem and social awareness. The workers were more alert and participated more in social situations, such as dances and field trips. However, their adaptive behavior was still unacceptable for community standards.

One of the problems was that unless a very structured, rewarding circumstance existed, the students' behavior deteriorated. This was even noticeable on lunch breaks and was specially acute during free time after the work day was over. An improvement had occurred, but more efforts were needed to shape their behavior on a continual basis.

The program has been continued beyond the one month covered by this report. A token economy program has been substituted for the tangible rewards and an hour time interval now occurs before reinforcement is given. The students are also performing more tasks than just punching gaskets. The efficacy in providing a vocationally oriented program for severely retarded adolescents was demonstrated. Replication of the study would not be difficult given sufficient patience, behavioral programming and proper work tasks.

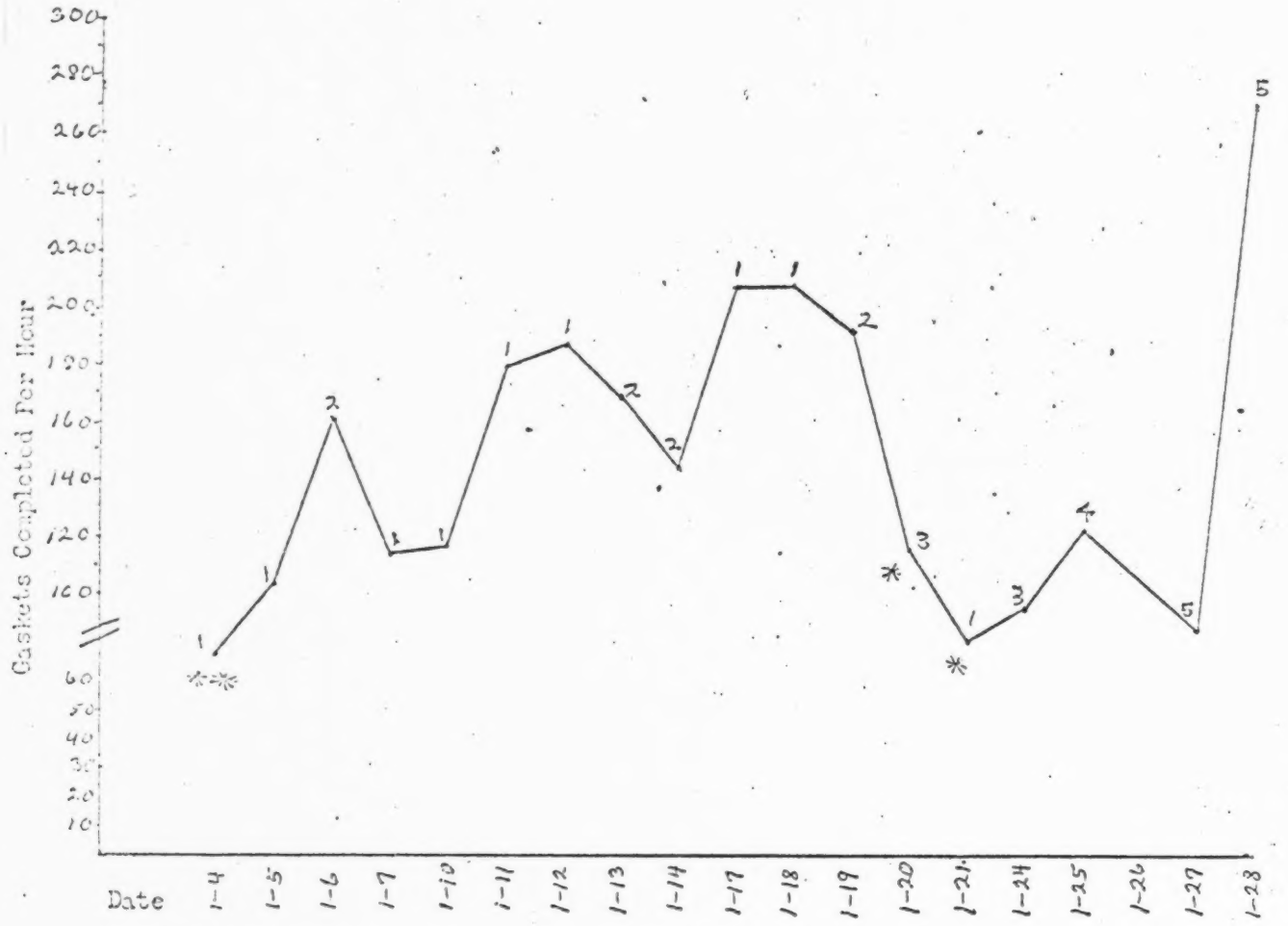
Footnotes

[1] This study was performed under Vocational Education Grant #19-33001-AB37-71 from the State of California. Acknowledgments are due to Richard Bell, whose daily assistance was appreciated.

Table 1. A summary is presented on the number of time intervals in which the workers were evaluated.

	Number of man hours of performance	
Time	Acceptable Work	Unacceptable Work
1st week-20 minute intervals of evaluation and reward	159 1/3	26 2/3
2nd week-30 minute intervals of evaluation and reward	123 1/2	25 1/2
3rd week-30 minute intervals of evaluation and reward	240 1/2	35 1/2
4th week-30 minute intervals of evaluation and reward	136 1/2	14 1/2
Total	589 5/6 85%	102 1/6 15%

FIGURE 1. Number of gaskets each worker completed per hour. The complexity of the work is indicated by a rating scale: "1" simple to "5" more difficult.



* Note different and new personnel for two days

Average 1st week - 135 gaskets/hr.; work difficulty "1.2"
4th week - 156 gaskets/hr.; work difficulty "4.2"

** Estimated production for first day